

White paper
October 2010

Sony Ericsson Aspen™ M1i, M1a



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Purpose of this document

Sony Ericsson product White papers are intended to give an overview of a product and provide details in relevant areas of technology.

Document history

Version

February 2010	First released version	Version 11
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Product overview

Sony Ericsson Aspen™ – Grow a greener business

Book meetings between meetings. Share minutes in minute detail. In the street. On the fly. New directives? One message to all your co-workers, in one go: You're on it. Keep your business going with Windows Mobile® and office apps. Use the touchscreen or the full keyboard. And feel good about Sony Ericsson Aspen™ being an eco-friendly phone.

Work and pleasure served on a panel

CNN for breakfast and Facebook™ at five? Sony Ericsson panels serve you with what you need, when you need it. From pure pleasure to prime work tools. Drag and drop panels onto the timeline and see them pop up on your home screen at the times set.

Success can take you anywhere. A-GPS too

Shook the hand? Sealed the deal? Share it. Push the SlideView key for all the apps you can't do without when you're out, up front. Like contacts, call list and emails. Passed that building twice? With A-GPS, Gokivo™ Navigator, Send My Location and Google Maps™ you can lose yourself in your thoughts, without getting lost.

Fill it up, please

The music you love, the book you never finished. In your ears anywhere. Hard rock classics for fanatics. Laidback singback on YouTube™. Enjoy it on Sony Ericsson Aspen™. And refuel.

GreenHeart™ phones help you meet your deadlines

Recycled plastic. Waterborne paint. Sony Ericsson Aspen™ is on good terms with Mother Nature. It's a GreenHeart™ phone that helps us reduce our impact on the environment. That's why we also keep paper and packaging to a minimum. You find the manual in the phone. It feels great to help, doesn't it?

One press to consume less

Saving power is easy. Just touch the GreenHeart™ icon of the default panel to activate Power save. More power for you when you need it. And fewer battery charges.



Facts – dimensions, weight, performance and networks










Operating system	Windows Mobile® 6.5.3
Size	117 x 60 x 12.45 mm
Weight	130 grams
Available colours	Iconic Black White Silver
Main screen	
Colours	65,536-colour TFT
Resolution	240x320 pixels
Size (diagonal)	2.4 inches
Input mechanisms	
Touch screen	Resistive (single touch)
QWERTY keyboard	Yes
Text input	Yes, XT9
Memory	
Available user flash	Up to 100 MB
Total flash	512 MB
RAM	256 MB
Memory card support	microSD™ (up to 16 GB)
Networks	
M1i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
M1a	UMTS HSPA 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Data transfer speeds	
GSM GPRS	Up to 85 kbps (downlink) Up to 42 kbps (uplink)
GSM EDGE	Up to 225 kbps (downlink) Up to 112 kbps (uplink)
UMTS HSPA (upload)	Up to 2.0 Mbps (uplink, HSUPA, Cat 5)
UMTS HSPA (download)	Up to 7.3 Mbps (downlink, HSDPA, Cat 7)

Talk time (GSM)	6 hours 30 min*
Standby time (GSM)	560 hours*
Talk time (UMTS)	7 hours 30 min*
Standby time (UMTS)	500 hours*
Music listening time	Up to 12 hour
Battery	1500 mAh Lithium Polymer

* According to GSM Association Battery Life Measurement Technique.

Note: Battery performance may vary depending on network conditions and configuration, and phone usage.

Full feature list – categorized list of features

 <p>Camera 3.2 megapixel camera 4x digital zoom Self timer Smart contrast</p>	 <p>Music Album art Bluetooth™ stereo (A2DP) Equalizer PlayNow™ Sony Ericsson media player Music tones (MP3/AAC) Windows Media® Player Mobile</p>	 <p>Web Bookmarks Google™ search Internet Explorer® Mobile Pan & zoom Web feeds HTML 4.01 XHTML 1.1</p>
 <p>Voice Call list Conference calls Polyphonic ringtones Speakerphone Vibrating alert</p>	 <p>Messaging Email Microsoft Exchange ActiveSync® Handwriting recognition Instant messaging Picture messaging (MMS) Predictive text input Sound recorder Text messaging (SMS) Unified SMS/MMS messaging composer</p>	 <p>Design Windows Mobile® 6.5.3 Media browser Picture wallpaper QWERTY keyboard Touchscreen Wallpaper animation</p>
 <p>Entertainment 3D games Adobe™ Flash Lite™ 3.1 support Capuchin version 1.0 Facebook FM radio with RDS Java™ Skype™ Video streaming Video viewing YouTube™</p>	 <p>Organiser Alarm clock Calculator Calendar Document readers (Adobe PDF reader) Flight mode Microsoft Office® mobile Notes Outlook® Mobile Phone book Tasks</p>	 <p>Connectivity 3.5 mm audio jack A-GPS Bluetooth™ technology Gokivo™ Navigator Google Maps™ Micro USB connector Send My Location Synchronisation USB mass storage USB support Wi-Fi™</p>

Technologies in detail

***NOTE:** The information outlined below is general and levels of compliance to standards and specifications may vary between products and markets. For more information, contact Sony Ericsson Developer World or your Sony Ericsson contact person where applicable.

Windows mobile support

Windows Mobile 6.5.3 Professional	Microsoft Outlook Mobile Microsoft Office Mobile: Word, Excel®, PowerPoint® and OneNote® Microsoft Internet Explorer Mobile Windows Media Player 10 Mobile Windows Live™ ActiveSync client File Explorer Direct Push email
Platform components	.NET CF v2, SQL CE Windows Mobile Marketplace Windows Mobile Update

Device-to-device communications (local)

Bluetooth™ wireless technology

Bluetooth™ 2.0 profiles supported	Advanced Audio Distribution Profile Audio/Video Remote Control Profile Generic Access Profile Generic Audio/Video Distribution Profile Generic Object Exchange Profile Handsfree Profile Headset Profile Object Push Profile Personal Area Networking Profile Phonebook Access Profile Serial Port Profile Sony Ericsson Watch Profile ActiveSync over Bluetooth
Core version and supported core features	2.0+EDR
Connectable devices	All products supporting Bluetooth spec. 1.1, or higher, and at least one of the profiles above

More information:

www.sonyericsson.com/developer

www.bluetooth.com

Wi-Fi™

Wi-Fi™ is a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections. Wi-Fi™ hotspots exist in an increasing number of locations e.g airports, hotels, cafés and bistros. If a mobile phone supports Wi-Fi™, it can be used to utilize high data transfer rates and lower calling costs.

Supported standards	Wi-Fi™ certified Support: 802.11g/802.11b
Connectable devices	Wi-Fi™ access points Wi-Fi™ ad-hoc mode
Frequency band	2.4 GHz
Data transmission rate	Up to 54 Mbps
Security	Open Open WEP Shared WEP WPA™ Personal and WPA2 Personal WPA™ Enterprise and WPA2 Enterprise WAPI
Encryption	TKIP and AES

Messaging

(MMS) Multimedia Messaging Service

According to OMA Multimedia Messaging Service v1.2 + SMIL

Email

Bearer type (IP)	GSM Data (IP) GPRS and HSCSD
Character sets	USASCII UTF-7 UTF-8 UTF-16 UTF-17LE UTF-16BE UCS-2 / ISO10646 UCS2 ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO-8859-10 Nordic ISO-8859-11 Thai ISO-8859-15 Western MR5 KOI8 GB18030 Simplified Chinese GB2312 Simplified Chinese BIG5 ISO2022JP Windows 1251 Cyrillic Windows 1252 Windows 1254 Turkish Windows 1255 Hebrew Windows 1258 Vietnamese Shift JIS Note: GB2312 is available in Simplified Chinese variants only, that is, Mainland China variants. BIG5 is only available in Traditional Chinese variants, that is, Hong Kong and Taiwan variants.
OTA provisioning solution	OMA Client Provisioning 1.1
Protocols	POP3, SMTP, IMAP4 and Microsoft Exchange
Push email	OMA Email Notification 1.0 and scheduled checking, Exchange ActiveSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and STARTTLS
HTML mail	Yes

More information:

www.sonyericsson.com/developer

www.openmobilealliance.org

Java™

Java™ Platform, Micro Edition	JSR-75 PDA Optional Packages for J2ME™ JSR-118 MIDP 2.1 JSR-120 Wireless Messaging API JSR-135 Mobile Media API 1.1 JSR-139 CLDC 1.1 JSR-172 J2ME™ Web Services Specification JSR-177 Security and Trust Services API for J2ME™ JSR-179 Location API for J2ME JSR-184 Mobile 3D Graphics API for J2ME™ JSR-185 Java™ Technology for the Wireless Industry JSR-205 Wireless Messaging API 2.0 JSR-211 Content Handler API JSR-234 Advanced Multimedia Supplements JSR-238 Mobile Internationalization API JSR-248 Mobile Services architecture Nokia UI Extension API Capuchin version 1.0 (This application framework makes it possible to bridge Flash technology with Flash.)
Java 3D	JSR-184 Mobile 3D Graphics API for J2ME™

Provisioning (OMA CP, OMA DM)

OMA CP version 1.1

OMA DM version 1.1.2, 1.2

Related information:

www.sonyericsson.com/developer

Synchronisation (OMA DS, EAS)

OMA Data Synchronization protocol versions 1.1.2 and 1.2

OMA Data Formats: vCard 2.1, vCalendar 1.0, vBookmark 1.0, notes as text/plain

Microsoft Exchange ActiveSync® and Windows Mobile Device Center

Multimedia

Audio and Video

Audio Playback	Decoder format Audio Decoding MPEG-1/2/2.5, audio layer 3 AMR-NB WMA version 2,7,8: Class 1 WMA version 9: Level 3 WMA Pro (profile M0a) General MIDI (GM) SP-MIDI Linear/A-law/.-law PCM	Supported in file format MP3 (.mp3) 3GP (.3gp); AMR (.amr) WMA (.wma) WMA (.wma) WMA (.wma) SMF (.mid) SMF (.mid) WAV (.wav)
Audio Recording	Encoder format AAC-LC	Supported in file format MP4 (.mp4)
Video Playback	Decoder format MPEG-4 Visual Simple Profile H.264 Baseline Profile H.263 Profile 0 WMV9 DIVX Mobile Profile	Supported in file format 3GP (.3gp); MP4 (.mp4) 3GP/MP4 3GP (.3gp) WMV (.asf, .wmv) AVI (.avi)
Video Recording	Encoder format Video: MPEG-4 Visual Simple Profile Audio: AAC-LC	Supported in file format 3GP (.3gp); MP4 (.mp4)
Audio/Video Streaming	Streaming transport	RTSP/RTP/RTCP/SDP
DRM	DRM (Digital Rights Management) features the rights and copy protection of downloaded content.	OMA DRM 1.0, 2.0, 2.1 Microsoft DRM Janus

Web browser

Browser version	<p>Internet Explorer Mobile</p> <p>HTML - 4.01</p> <p>XHTML - Basic, XHTML 1.01</p> <p>WAP - 1.2.1, 2.0</p> <p>CSS - Level 1, Level 2 (partial), Mobile Profile 1.0, Wireless (WAP) CSS 1.1</p> <p>Scripting/DOM - JScript 5.6, DOM Level 0, DOM Level 1 (partial), DOM Level 2 (partial)</p> <p>cHTML - A mobile device adapted version of the standard Internet communications protocol HTML</p> <p>Full HTML support, JScript, Progressive download of video files</p> <p>Direct access to Search Internet and Enter address</p> <p>HTML - 4.01 (with some exceptions)</p> <p>XHTML - Basic, 1.0, 1.1 (both with some exceptions)</p> <p>XHTML Mobile Profile 1.0, 1.1, 1.2 (with some exceptions)</p> <p>WML 1.3, 2.0 (both with some exceptions)</p> <p>CSS - Level 1, Level 2 (partial), Mobile Profile 1.0, Wireless (WAP) CSS 1.0, 1.1</p> <p>XSLT 1.0, XPath 1.0, XML Namespaces, XML ID, XML Events</p> <p>Scripting/DOM - JScript 5.6, DOM Level 0, DOM Level 1 (partial), DOM Level 2 (partial)</p>
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Related information:

www.sonyericsson.com/developer

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